Canada's food grades



Agriculture Canada

Publication 1720 E



PUBLICATION 1720E, available from Communications Branch, Agriculture Canada, Ottawa K1A 0C7

©Minister of Supply and Services Canada 1982 Cat. No. A73—1720/1982E ISBN: 0-662-11890-1 Printed 1982 Reprinted 1984 30M—6:84

This publication replaces publication 1283, Food Grading in Canada

Également disponible en français sous le titre Classement par catégories des aliments au Canada

CONTENTS

Dairy products/ 5
Eggs/ 8
Fresh fruits and vegetables/ 10
Processed fruits and vegetables/ 14
Honey/ 18
Maple syrup/ 20
Meat/ 21
Poultry/ 24
Food labeling/ 27

Appendix: a background of grading in Canada/ 29

Canada's food grades

Food Advisory Division

Grading and inspection of Canadian agricultural food products benefits everyone: farmers, processors and consumers. It lets producers and processors receive returns based on the quality of the products they produce. It assures consumers that they get quality products that are nutritious, wholesome and safe to eat. It also provides for labeling that accurately lists the contents.

Agriculture Canada establishes grades for dairy products, eggs, fresh and processed meat and poultry, fresh and processed fruits and vegetables, honey and maple syrup. Standards of composition are set for numerous dairy products, processed fruits, vegetables and meat products. Regulations are developed in close cooperation with industry and are renewed regularly to reflect changes in production or marketing.

Agriculture Canada inspectors check the produce where it is produced or in warehouses, packing plants or at distribution points. All produce for interprovincial, export or import trade must come under federal inspection. Agriculture Canada also inspects all registered plants to ensure that their construction and operation comply with federal sanitation requirements.

Consumer and Corporate Affairs Canada inspects food in retail stores. Its inspectors also check for incorrect or deceptive labeling of products.

The Canada Agricultural Products Standards Act is the legislation whereby grades are established for agricultural products in Canada. It also sets forth standards of composition for some foods that are not graded, and includes packaging and grade marking specifications. Labeling requirements are consistent with regulations under the Food and Drugs Act and Consumer Packaging and Labeling Act.

Many provinces have legislation similar to some federal grading regulations and appoint Agriculture Canada inspectors to enforce them.

Federal grade standards apply to foods shipped from one province to another, as well as to imports or exports. The word "Canada" on a product means that the food meets the quality standards of the "Canada" grade. Imported fresh fruits and vegetables may use the "Canada" grade mark and must be marked with the country of origin, e.g. Canada No. 1, product of U.S.A. Imported processed fruits and vegetables cannot be labeled "Canada" with the grade name when sold in their original containers.

The Meat Inspection Act, enforced by Agriculture Canada, covers the inspection of meat and meat products in federally inspected plants. Federal veterinarians examine animals before and after slaughter to ensure that the meat will be wholesome. They inspect all processing operations, regulate meat labeling and set composition standards.

Federally approved meat and meat products are stamped or labeled with the round "Canada" meat inspection legend bearing a crown in the center and the registration number of the plant. Federally registered plants must comply with rigid sanitation requirements for construction,

operation and processing.

Legislation has been converted to metric for some products; for others it is still to be done. For this reason, you will find either metric or imperial units of measure in this publication, depending on the product. Remember that the publication is *not* a legal document, but is intended as consumer information only. If you want copies of regulations for commodities under the Canada Agricultural Products Act or the Meat Inspection Act, you can buy them from:

Canadian Government Publishing Centre Supply and Services Canada Hull, Quebec K1A 0S9

DAIRY PRODUCTS

Dairy products made from milk or milk fat are inspected for composition, labeling and weight, and some are graded.

BUTTER The butter most widely available at retail is Canada 1 grade. It has excellent flavor, smooth texture, firm body and is uniform in color. It is made only from pasteurized milk fat (not less than 80%) and contains milk solids, salt and permitted food color. "Unsalted" butter is marked as such. Creamery butter is sold in standard sizes of 125 g, 250 g and 454 g.

Dairy spread, calorie-reduced butter, whey butter, whipped butter and whipped dairy spread are also sold by grade.

butter

CANADA

beurre

Packed for (company name)

250 g

Empaqueté pour (nom de la compagnie)

SKIM MILK POWDER Skim milk powder, partly skimmed milk powder and whole milk powder are graded and Canada I grade is sold in retail packages. The powders must meet standards of composition and quality and are checked for bacteria count. Buttermilk powder and whey powder are available for institutional use.

skim milk powder

CANADA

lait écrémé en poudre

PASTEURIZED-INSTANT

INSTANTANÉ - PASTEURISÉ

VITAMINS A AND D ADDED

500 g MAKES/FONT 5 LITRES ADDITIONNÉ DE VITAMINES A ET D

Packed for (company name)

S/FONT Empaqueté pour TRES *(nom de la compagnie*)

CHEESE Most bulk cheddar cheese is graded and some is sold by grade (Canada 1) in retail stores. Prepackaged cheddar is usually marked "mild", "medium" or "old", according to the degree of aging.

All prepackaged natural cheese and process cheese sold at retail is marked with the percentage of milk fat and moisture by weight and a list of ingredients. Perishable cheeses such as cream or cottage cheese are marked with a "best before" date. This indicates how long you can expect the unopened package to maintain high quality.

Less common types of cheese are labeled for relative firmness (soft, semisoft, firm and hard) and for ripening characteristics (e.g. unripened fresh, interior ripened, surface ripened and blue veined).

Process cheese products fall into three categories:

Process (naming the variety) cheese is essentially natural cheese melted into a homogeneous mass. It contains slightly more water than the natural cheese from which it was made. Milk or skim milk must not be added. Moisture and fat content are listed on the label.

Process cheese food and process cheese spread usually contain more than one variety of cheese, in varying quantities. They can contain slightly more moisture than process cheese, and milk or skim milk is added as an extender. Process cheese spread has even more moisture and less fat than process cheese food. It is spreadable and convenient to use.

Cold pack cheese and cold pack cheese food are made by grinding and mixing one or more varieties of cheese without using heat. The acidity is usually increased to give them a unique flavor. Cold pack cheese food is the extended version of cold pack cheese.

Fruits, vegetables, nuts, prepared or preserved meats or fish may be added to the above products. They must be declared in the common name and in the list of ingredients.

Grades

| | Canada 1* | Canada 2 | Canada 3 |
|--|-----------|----------|----------|
| Butter | X | X | X |
| - Cultured butter | X | X | X |
| - Whey butter | X | X | X |
| Calorie-reduced butter | X | X | X |
| Whipped butter | X | X | X |
| Dairy spread | X | X | X |
| Cheddar cheese | X | X | X |
| Skim milk powder | X | X | |
| Whole milk powder | X | X | |
| Partly skimmed milk powder | X | X | |

^{*}Grade generally available at retail

Basis for grades

| Butter* | Cheddar cheese | Skim milk powder |
|--|--|---|
| flavor typical texture smooth body firm moisture well incorporated | flavor typical texture smooth body, firm and compact color uniform | flavor typical odor typical color uniform moisture content within limit |
| color uniform | surface clean and unbroken freedom from mold | bacteria count within limit dissolves easily sediment within limit |

^{*}whey butter, whipped butter, dairy spread etc.

Labeling

Labels of all dairy products must list the common name, name and address of the manufacturer, packer, wholesaler or retailer, net weight, ingredients and any other information, and have the maple leaf grade mark, where required. The percentage of milk fat is declared on cheddar and specialty cheeses, dairy spread, calorie-reduced butter and partly skimmed milk powder.

The words "Product of.." followed by the name of the country of origin must be shown on imported cheese repackaged in Canada.

Inspection

Manufacturers grade their butter and Agriculture Canada inspectors check the product in creameries, warehouses and institutions for accuracy of grading, composition and weight. Skim milk powder is also sold by grade at retail and inspectors monitor the quality. They also check the composition of cheddar cheese, process cheese, specialty cheeses, butter and dairy spreads, frozen and concentrated dairy products and skim milk powder at manufacturing and wholesale, and issue grade and inspection certificates.

Frozen dairy products are also inspected for weight and labeling; concentrated milks for microbiological content and labeling.

In addition, Agriculture Canada inspects registered dairy plants to ensure they meet sanitation standards.

Most provinces have legislation similar to federal grading regulations and cooperate with the federal inspection and grading service. Provincial dairy inspectors supervise the production and processing of raw milk and cream. Under provincial legislation standards are set for pasteurization of fluid milk and cream and for the sanitation of these products.

EGGS

Eggs in the shell are sold by grade in all provinces. Grade marks must be shown on cartons and bulk displays in retail stores. All shell eggs that are imported, exported or shipped from one province to another must be graded. Federal grade standards are used across Canada.

The grade name appears inside a maple leaf symbol for Canada A1, Canada A and Canada B. The maple leaf does not appear on Canada C, which does not reach the retail market.

A producer may grade his own eggs or have them graded at an egg grading station registered with Agriculture Canada.

The grades indicate the quality of the eggs and should not be confused with size. Only Canada A1 and Canada A are available in different sizes.

Canada A grade eggs are available in the following sizes: extra large, large, medium, small and peewee.

eggs canada oeufs

LARGE SIZE CALIBRE GROS

Sizes

CANADA A AND A1 GRADES

Extra large – at least 64 g Large – at least 56 g

Medium – at least 49 g but less than 56 g Small – at least 42 g but less than 49 g

Peewee (Grade A only) – less than 42 g CANADA B GRADE – at least 56 g

Grades

Eggs are graded on:

weight;

- cleanliness, soundness and shape of shell;

- shape and relative position of yolk within the egg, as viewed during candling;
- size of air cell (a small air cell indicates freshness); and
- abnormalities, if any, such as meat and blood spots.

All grades must be free from discolored yolks and blood spots. Canada A1 and A eggs are ideal for all uses, but are especially good for frying and poaching where appearance is important.

CANADA A1 Eggs are clean, normal in shape with sound shells and finest interior quality. Yolks are round and compact and surrounded by very thick, firm albumen. Canada A1 eggs are of premium quality and in limited supply on the retail market. Cartons are marked with an expiry date 9 days from date of grading. If eggs are not sold within that time, unsold stocks are returned to the supplier.

CANADA A Eggs are practically clean, practically normal in shape, with sound shells. Yolks are fairly well rounded and surrounded by thick albumen.

CANADA B Eggs are reasonably clean, slightly abnormal in shape, with sound shells. Yolks are moderately oblong, slightly flattened and enlarged, and surrounded by albumen less firm than in Canada A. Canada B eggs are good for general cooking and baking where appearance is not too important.

CANADA C Eggs are suitable for processing into commercially frozen, liquid and dried egg products. Sizes are not specified. May include cracked eggs.

GRADE "CRACKS" Provincial grade sold in some provinces. Sizes are not specified. Shell is cracked but contents are not leaking.

Processed egg products

Liquid, frozen and dried whole egg yolk and albumen are rarely available in retail stores. They are used commercially for baking and in the foodservice industry. The grades are Canada A, Canada B, and Canada C.

Inspection and labeling

Registered egg grading stations must meet certain operating and sanitation requirements. Federal agricultural inspectors spot check both producer premises and egg grading stations to ensure that accurate grading is being carried out under sanitary conditions that meet federal standards. The inspectors frequently check the quality of eggs at wholesale distributors, retail stores not inspected by Consumer and Corporate Affairs Canada, and restaurants, hospitals, other institutions and military camps.

Agriculture Canada inspects all egg processing plants to ensure that the products are wholesome and processed according to sanitary standards. They also monitor the pasteurization and packaging of the egg products.

Federal inspectors also monitor packaging and labeling of eggs in retail establishments throughout Canada.

Eggs must be packed in new cartons. All cartons must be labeled with the name, quantity, grade, size, and name of the producer, packer, grading station or retailer.

Imported eggs must meet the same quality and packaging standards as the Canadian product. They cannot carry the name "Canada" in the grade mark unless they are regraded and repacked.

FRESH FRUITS AND VEGETABLES

Most Canadian fruits and vegetables grown in large quantities are sold by grade. Not all provinces require grading of the same fruits and vegetables, though all have regulations covering some. Provincial grades are similar to the federal ones outlined below. Federal grades are compulsory for interprovincial and export trade.

Producers or packers grade their own fruits and vegetables. All products bearing federal grade names (designated "Canada") must meet grade and label specifications and must be in standard packages. Fresh fruits and vegetables are graded on:

- uniformity of size and shape;
- minimum and maximum diameter;
- minimum length;
- color;
- maturity;
- freedom from disease, injury and other defects and damage; and
- cleanliness.

Grades

Fruit

| Apples | Canada Extra Fancy | Canada Fancy | Canada Commercial or Canada Cee or Canada "C" |
|----------------------|-----------------------|---------------------------------|---|
| Apricots | Canada No. 1 | Canada Domestic | - |
| Blueberries | Canada No. 1 | - | |
| Cantaloupes | Canada No. 1 | - | |
| Cherries | Canada No. 1 | Canada Domestic | Canada Orchard Run |
| Crabapples | Canada No. 1 | Canada Domestic | _ |
| Cranberries | Canada No. 1 | Canada Domestic | _ |
| Grapes | Canada No. 1 | Canada Domestic | - |
| Peaches | Canada No. 1 | Canada Domestic | _ |
| Pears | Canada Extra Fancy | Canada Fancy or Canada No. 1 | Canada Commercial or Canada Cee or Canada "C" or Canada Domestic |
| Plums | Canada No. 1 | Canada Domestic | _ |
| Prunes (prune plums) | Canada No. 1 | Canada Domestic | _ |
| Rhubarb (field) | Canada No. 1 | Canada Domestic | _ |
| Strawberries | Canada No. 1 | _ | _ |

APPLES Graded apples are "sized" and must be a minimum diameter of 21/4 in. to meet federal standards. If, in some years, growing conditions warrant, a 2 in. minimum diameter may be permitted for red and redstriped varieties of Canada Extra Fancy and Canada Fancy grades, but these must then have 20% more color than normal.

Color requirements for the three grades of apples are based on the amount of red considered characteristic of the variety when it is fully mature.

Apples packed in boxes are sized according to box count.

Vegetables

| Asparagus | Canada No. 1 | Canada No. 2 |
|----------------------------------|--|--------------|
| Beets | Canada No. 1 | Canada No. 2 |
| Brussels sprouts | Canada No. 1 | Canada No. 2 |
| Cabbages | Canada No. 1 | Canada No. 2 |
| Carrots | Canada No. 1 | Canada No. 2 |
| Cauliflowers | Canada No. 1 | Canada No. 2 |
| Celery | Canada No. 1 and Canada No. 1 Heart | Canada No. 2 |
| Cucumbers (field and greenhouse) | Canada No. 1 | Canada No. 2 |
| Head lettuce | Canada No. 1 | Canada No. 2 |
| Onions | Canada No. 1 and Canada No. 1 Pickling | Canada No. 2 |
| Parsnips | Canada No. 1 | Canada No. 2 |
| Potatoes | Canada No. 1 Canada No. 1 Large Canada No. 1 Small | Canada No. 2 |
| Rutabagas | Canada No. 1 | _ |
| Sweet corn | Canada No. 1 | _ |
| Tomatoes (field and greenhouse) | Canada No. 1 | Canada No. 2 |

CARROTS Sizes for carrots are:

Canada No. 1 – minimum diameter ¾ in. minimum length 4½ in.

Canada No. 2 – minimum diameter ¾ in. minimum length 4½ in.

POTATOES Sizes for potatoes are:

Canada No. 1 – 2½ to 3½ in. diameter for round varieties. 2 to 3½ in. diameter for long varieties — at least 60% have a diameter of at least 2¼ in.

Canada No. 1 – Large – 3 to $4\frac{1}{2}$ in. diameter Canada No. 1 – Small – $1\frac{1}{2}$ to $2\frac{1}{4}$ in. diameter

Canada No. 1 – New Potatoes – Before September 16 each year, new potatoes with a minimum diameter of 17/8 in. (both round and long varieties) may be graded Canada No. 1

Canada No. $2 - 1\frac{3}{4}$ to $4\frac{1}{2}$ in. diameter with at least 75% of the lot having a diameter not less than 2 in.

Labeling

Label information must include:

common name of product;

- net quantity (volume, weight or count — marked on box or carton);

- grade name;

 name and address of the packer or distributor for whom produce was produced;

size range (apples or vegetables);

- "product of" plus name of country or province, where required; and

- variety (for apples or pears).

All produce in bulk displays must meet grade specifications if a grade is declared. Bulk displays of apples in retail stores must also indicate the variety when a grade is marked.

Inspection

Agriculture Canada inspectors check grades, packaging and markings of fruits and vegetables produced in Canada or imported, at the time of packing or shipping, or at destination markets. They also inspect and certify shipments for export.

Grades are also checked in food stores by federal retail inspectors of Consumer and Corporate Affairs Canada. Ontario and Quebec have their own inspectors. These collaborate with federal inspectors in checking grades of produce grown and sold in their Provinces as well as that coming into the provinces. Other provinces that have no inspectors ask federal inspectors to check the grades of fruits and vegetables on their behalf.

Imports

Fresh fruits and vegetables from the U.S.A., for which grades are established in Canada, are inspected at time of shipment by the U.S. Department of Agriculture for compliance with Canadian import requirements. Produce from other countries is inspected when it enters Canada. Bulk displays must be marked with the "Canada" grade mark and the country of origin, e.g. Canada No. 1, Product of U.S.A.

PROCESSED FRUITS AND VEGETABLES

Most processed fruits and vegetables are sold by grade in Canada. The grade standards have been established under the Processed Fruit and Vegetable Regulations of the Canada Agricultural Products Standards Act.

Only federally registered plants may ship processed fruits and vegetables from one province to another or out of Canada. About 95% of the Canadian production comes from these plants. Their products can be

recognized by the prefix "Canada" in the grade name.

Imported fruit and vegetable products for which grades are established must carry a grade mark and meet Canadian grade standards. They cannot use "Canada" as part of the grade name when sold in original containers. The name of the country of origin must appear on the label.

Inspection

Processors grade their own products. Agriculture Canada inspectors check samples to make certain the products meet the grades claimed.

Federal inspectors also take samples at the warehouses of wholesalers and importers and in retail stores to ensure conformity with grade and other requirements.

Grades

Processed fruits and vegetables are graded on:

- flavor and aroma;
- color;
- tenderness and maturity;
- uniformity of size and shape;
- consistency or texture;
- appearance of liquid media (e.g. canned peas); and
- freedom from defects and foreign matter.

The grades are:

| Canned fruit | Canada Fancy | Canada Choice | Canada Standard |
|-----------------------|--------------|---------------|--------------------|
| Canned vegetables | Canada Fancy | Canada Choice | Canada Standard |
| Canned apple juice | Canada Fancy | Canada Choice | |
| Canned tomato juice | Canada Fancy | Canada Choice | |
| Frozen fruit | Canada Fancy | Canada Choice | |
| Frozen vegetables | Canada Fancy | Canada Choice | |
| Dehydrated fruit | Canada Fancy | Canada Choice | |
| Dehydrated vegetables | Canada Fancy | Canada Choice | |

If a product fails to meet the lowest prescribed grade but is sound, wholesome and fit to eat, it must be marked "Sub Standard". Products so labeled are not regularly found in stores.

Grades for canned fruits and vegetables

CANADA FANCY The fruits or vegetables are sound, clean, at proper maturity and as nearly perfect as possible. They are practically free from blemishes, of good color and uniform size. The liquid is clear. This grade is suitable for use where appearance, uniformity of size and color are important.

CANADA CHOICE Slight variation in size, color and maturity is allowed, but fruits or vegetables must be sound, clean and almost free from blemishes and other defects. Liquid is fairly clear. Suitable for general use where perfect uniformity in size and color are not important. CANADA STANDARD Good, flavorful, fresh produce not necessarily of uniform size makes up this grade. Appearance is not the most important consideration and may vary from one can to another Fruit may be more or less ripe and may be more broken than in other grades. Canned fruit of this grade is economical for pudding and sauces. Vegetables of this grade may be less tender and are suitable for soups, stews and similar dishes.

Can Sizes

Canned fruits and vegetables are packed in standard containers of 5 fl oz (142 mL), 10 fl oz (284 mL), 14 fl oz (398 mL), 19 fl oz (540 mL), 28 fl oz (796 mL), 48 fl oz (1.36 L), and 100 fl oz (2.84 L). Special sizes are allowed for asparagus, whole-kernel and vacuum-packed corn, corn-on-the cob, fruit and vegetable juices, baby foods, tomato paste and sweet potatoes.

Labeling

Grade marks must be shown on the main part of the label. The volume of each can in fluid ounces and millilitres must also be shown; metric-size cans are marked in millilitres only.

Some canned vegetables such as green and wax beans, peas, lima beans, asparagus tips or spears and whole white potatoes are size graded and marked with the size or size description. For example, peas may be marked Size No. 1 to No. 5 or Small, Medium, or Large or "Assorted Sizes", "Mixed Sizes" or "Ungraded as to Size".

The sugar added to frozen fruit must be declared on the label as percentage of dry sugar. When fruits are packed without sugar, the words "no sugar added" or "unsweetened" must appear.

Processed fruit syrups

Government regulations permit a variety of syrup strengths for processed fruit, ranging from extra heavy syrup to slightly sweetened water. Fruit may also be packed in fruit juice without the addition of extra sugar.

The five syrup strengths are based on the soluble solids content of the liquid in which they are packed (i.e. sugar syrup and juice from the fruit):

- Extra heavy syrup or extra heavy fruit juice syrup is used mostly in imported fruit. It has a minimum of 23% soluble solids in canned or frozen peaches, pears, pineapple and fruit salad or 25% in apples, apricots, berries, cherries and plums.
- Heavy syrup or heavy fruit juice syrup has a minimum of 18 to 19% soluble solids depending on the fruit and is the syrup most often seen on the market.
- Light syrup or light fruit juice syrup has a minimum of 14 to 15% soluble solids.
- Slightly sweetened water or slightly sweetened fruit juice has a minimum of 10 to 11% soluble solids.
- Fruit packed in its own juice has no extra sugar added.

Fruit and vegetable juices and nectars

CANADA FANCY AND CANADA CHOICE are the grades for tomato juice, tomato juice cocktail, mixed vegetable juices, apple juice, concentrated apple juice (canned and frozen) and apple juice from concentrate.

When the word "juice" is marked on the label it indicates that the product consists of fruit or vegetable juice only. If salt or sugar is added it must be declared in the list of ingredients.

TOMATO JUICE COCKTAIL Consists principally of tomato juice to which is added another vegetable juice (not more than 15% of the product).

MIXED VEGETABLE JUICES Consist of two or more vegetable juices including tomato juice (up to 85% of the total product). The vegetable juices must be named on the label in order of their proportion.

FRUIT NECTARS Contain pureed fruit (apricot, peach or pear) blended with water or fruit juice. They may contain sugar, citric acid or lemon juice and ascorbic acid.

PRUNE NECTAR A water extract from dried prunes, this may contain lemon juice, citric acid and ascorbic acid.

JUICES AND NECTARS WITH VITAMIN C ADDED Fruit and vegetable juices may be packed with or without ascorbic acid to increase the vitamin C content. When labeled "vitamin C added" they should contain the following amounts of ascorbic acid at any time within 12 months from the date of packing:

- not less than 18 mg ascorbic acid per 100 mL of juice tomato juice cocktail mixed vegetable juices

*grape juice

*grape juice from concentrate

*concentrated grape juice

(reconstituted)

 not less than 35 mg ascorbic acid per 100 mL of juice apple juice (canned or frozen) apple juice from concentrate concentrated apple juice (reconstituted)

Sizes

Fruit and vegetable juices that are graded are packed in the following size containers: $5\frac{1}{2}$ fl oz (156 mL), 6 fl oz (170 mL), 8.8 fl oz (250 mL), 10 fl oz (284 mL), 14 fl oz (398 mL), 19 fl oz (540 mL), 28 fl oz (796 mL), 35.2 fl oz (1 L), 48 fl oz (1.36 L), 80 fl oz (2.27 L) and 100 fl oz (2.84 L).

Frozen fruits and vegetables

CANADA FANCY Best quality produce, as nearly perfect as possible. CANADA CHOICE Good flavored product. It is not as perfect in appearance as Canada Fancy, as color, size and maturity are less uniform.

Special blends or combination mixed frozen vegetables may contain some vegetables for which grades are not established, and others for which they are. In such cases, the mixtures are assigned either Canada

^{*}not graded

Fancy or Canada Choice grade. The graded vegetables in them must conform to the grade assigned, and the ungraded vegetables must have good or normal flavor and odor and tender or fairly tender texture.

Sizes

Frozen fruits are packed in the following net weights: 225 g, 300 g, 425 g, 600 g, 1 kg, 1.25 kg, 1.5 kg, 1.75 kg and 2 kg.

Frozen vegetables are packed in these net weights: 250 g, 300 g,

350 g, 400 g, 500 g, 1 kg, 1.25 kg, 1.5 kg, 1.75 kg and 2 kg.

Dehydrated and dried fruits and vegetables

Standards are established for maximum allowable moisture and preservative content. The dried product contains more moisture than the dehydrated product. Maximum bacterial levels are prescribed for dehydrated vegetables.

CANADA FANCY and CANADA CHOICE are the grades for dried and dehydrated apples, dried blueberries and dehydrated vegetables.

Jams, jellies, pie fillings, pickles

Jams, jellies, pie fillings, pickles and similar processed fruit and vegetable products are not sold by grade but there are federal standards for quality and composition. The regulations also cover the conditions and manner in which processed products may be graded, packed, marked, inspected and shipped from one province to another or exported from or imported into Canada.

Jams, jellies, marmalades, fruit spreads and preserves are sold in these sizes: 250 mL, 375 mL, 500 mL, 1 L, 1.5 L, 2 L, 3 L and 4 L. Pickles, relishes and chutneys come in similar sizes but include 125 mL.

HONEY

Honey produced for sale in Alberta, British Columbia, Manitoba, Ontario and Saskatchewan must be graded and classified as to color, except when sold directly to consumers at an apiary. All honey for export, and extracted honey in consumer containers of 5 kg or less for interprovincial trade, must be graded and color classified. Color of honey does not affect grade but is an indication of flavor; usually the darker the honey, the stronger the flavor.

Grades and color classes

Honey grades are Canada No. 1, Canada No. 2 and Canada No. 3. Canada No. 2 and Canada No. 3 are not usually available in retail stores.

They are used by the bakery trade and have other commercial uses.

Honey that is wholesome but fails to meet standards for Canada No. 3 is marked "Sub Standard".

Color classes are White, Golden, Amber and Dark.

Honey is graded and color classified by the packer. It is graded on flavor, freedom from foreign material and keeping quality.

Canada No. 1 honey must be free from foreign material and meet high standards for moisture, uniformity of color, clearness and flavor. Most honey sold in retail stores is Canada No. 1 and is in liquid or creamed form.

Liquid honey is marked as such and is usually pasteurized (heat treated) to destroy yeasts that may cause it to ferment. Pasteurized honey will keep almost indefinitely.

Creamed honey is made by seeding liquid honey with finely granulated honey and storing it under controlled conditions until completely granulated. It may also be marked "churned" or "whipped" to indicate fine granulation. Creamed honey, too, is usually pasteurized.

Comb honey is natural honey sealed in the wax made by the bees in the hive. It may be sold in sections, in wooden frames or in individually wrapped pieces.

Chunk honey consists of pieces of comb honey packed with some liquid honey.

Sizes

Honey is sold in metric sizes (in whole grams) up to and including $150~\rm g$ net weight. It is also available in larger sizes of $250~\rm g$, $375~\rm g$, $500~\rm g$, $750~\rm g$, $1~\rm kg$, $1.5~\rm kg$, $2~\rm kg$, $3~\rm kg$ or $5~\rm kg$.

Inspection

Federal agriculture inspectors check grades and color classes claimed at retail, wholesale or by the manufacturer and certify honey shipments for export.

Agriculture Canada inspectors also check grades and color classes of honey produced and sold within Alberta, British Columbia, Manitoba and Saskatchewan. In Ontario, federal and provincial inspectors share this responsibility.

Honey, sold under the "Canada" grade name or shipped from one province to another, is packed in registered packing plants or by registered producer graders under the regular supervision of Agriculture Canada inspectors.

Inspectors of Consumer and Corporate Affairs Canada also check honey in food stores in most large cities.

MAPLE SYRUP

There are federal grades and color standards for maple syrup. The grades are not compulsory for syrup produced and sold within the same province, except in Quebec where all maple syrup sold on the public market must be graded.

Whenever a grade is marked on a container of maple syrup offered for sale in another province or country, it must be one of the "Canada" grades and the syrup must comply with the grade and color standards.

Grades and color standards

Maple syrup is graded on color, characteristic flavor, freedom from fermentation, and freedom from cloudiness. The grades are:

CANADA NO. 1 Uniform in color, free from cloudiness, color class is Extra Light, Light or Medium, characteristic maple flavor increasing with depth of color, no trace of fermentation or other objectionable odor or taste.

CANADA NO. 2 Uniform in color, free from cloudiness, color class is Amber, stronger maple flavor than Canada No. 1, no trace of fermentation or other objectionable odor or taste.

CANADA NO. 3 Characteristic maple flavor, any color, free from any objectionable odor or taste other than a trace of caramel or a bitter taste. Canada No. 3 is a commercial grade generally intended for further processing and is not usually available in retail stores.

Sizes

Maple syrup is sold in containers containing from 1 mL to 125 mL, 250 mL, 375 mL, 500 mL, 540 mL, 750 mL, 1 L, 1.5 L or any multiple of 1 L.

Pure maple products can be labelled "maple" only if the product is made from maple sap. If it is not a pure maple product, the label must have a complete list of the ingredients in order of their proportion. If artificial coloring or flavoring is used, it must be declared.

Inspection

Federal agriculture inspectors check maple syrup and other pure maple products for grades and color standards when declared. They also inspect for composition, purity and proper labeling at producer, processor and wholesaler, and inspect shipments for export. Federal retail inspectors check products in food stores in most large cities.

Health inspection

Meat is health inspected to ensure that it is wholesome and fit for human consumption. All meat destined for interprovincial, foreign or import trade must be health inspected by federal government inspectors.

More than 85% of Canada's meat supply is federally inspected. Some provinces have their own regulations for the inspection of meat sold within their borders.

Agriculture Canada is responsible for federal meat inspection. Its veterinarians examine food animals before and after slaughter to ensure that the meat is wholesome. Carcasses that do not pass inspection are condemned and processed for animal feed and fertilizer.

Under the Canada Meat Inspection Act, inspection is carried out during all processing operations, composition standards are set for processed products, and labeling is regulated. Meat inspectors also administer certain sections of the Food and Drug Regulations and Consumer Packaging and Labeling Regulations, and ensure the humane handling of animals under the Humane Slaughter Act. Registered packing plants must comply with rigid sanitation requirements for construction, operation and processing.

Inspection stamp

Federally approved meat and meat products are stamped or labeled with the meat inspection legend — a round stamp bearing a crown in the center, the word "Canada" and the registration number of the plant. Every portion of the carcass and every organ, where practical, are stamped when found wholesome. Edible dyes are used for all stamps or grade marks.

The inspection stamp is on the label of all approved products, including canned, frozen, packaged or smoked meats.

Every label on a retail package prepared in a registered establishment must receive federal approval.

Composition standards

During further meat processing, the method of preparation, formulae and ingredients must be approved as an additional measure of protection. Composition standards for meat products are established and enforced by Agriculture Canada to ensure against adulteration and deceptive labeling. Sausages, luncheon meats, cretons, head cheese, tourtières, meat and vegetable combination products (e.g. canned stews), meat and poultry pies, canned meat or chicken spreads, loaves, patties and steakettes must all meet standards; these regulate the amount and kinds of meat, fat, moisture, filler, spices and other ingredients. Percentage of

total protein is also regulated for many products. Standards are set for ground beef — regular ground beef must have a minimum of 16% total protein and a maximum of 30% fat; medium ground beef a maximum of 23% fat; and lean ground beef a maximum of 17% fat.

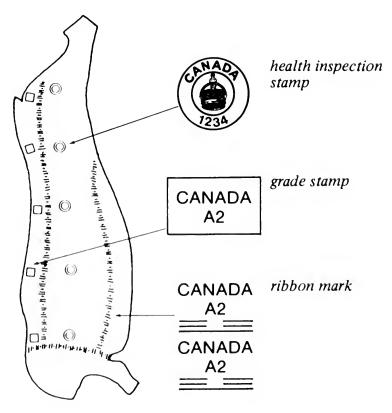
Grading

Animals slaughtered in packing plants under federal or provincial inspection are eligible to be graded by graders of Agriculture Canada. Beef, veal, lamb and mutton carcasses are graded to provide a basis for merchandising and producer settlement as well as for consumer information.

Grading is available to the industry on a voluntary basis. Some provinces have designated the Canada Agriculture Products Standards Act and its regulations as the specifications for grading; British Columbia, Alberta, Saskatchewan and Ontario have their own regulations using federal grade specifications and have named federal inspectors as graders. Carcasses are graded on:

- potential meat yield;
- amount of fat covering;
- maturity of the animal as determined by condition of the bones; and
- texture and color of fat and lean.

Health Inspection and Grade Stamps on beef carcass. Canada A beef has 4 fat levels — Canada Al, A2, A3 and A4.



Grade identification

Most beef on the retail market is sold by grade and in some areas consumers may buy graded lamb and veal. Pork is not sold by grade in retail stores. A beef carcass is grade stamped and branded with a continuous ribbon-like mark in a color and wording indicating the grade. For Canada A and Canada B grades, the fat class is also marked. The ribbon brand is applied in such a way that it appears on the major wholesale and most retail cuts.

There are 10 quality grades for beef, five for veal and four for lamb:

| В | eef | Veal | La | ımb |
|-----------|--------------|----------|-----------|--------------|
| | Fat levels | | | Fat levels |
| Canada A | 1, 2, 3, & 4 | Canada A | Canada A | 1, 2, 3, & 4 |
| Canada B | 1, 2, 3, & 4 | Canada B | Canada B | |
| Canada C1 | | Canada C | Canada C1 | |
| Canada C2 | | Canada D | Canada C2 | |
| Canada D1 | | Canada E | | |
| Canada D2 | | | | |
| Canada D3 | | | | |
| Canada D4 | | | | |
| Canada D5 | | | | |
| Canada E | | | | |

The quality grades for beef, veal and lamb are identified by the colored ribbon brand:

| Grade | Color of ribbon-brand |
|----------|-----------------------|
| Canada A | red |
| Canada B | blue |
| Canada C | brown |
| Canada D | black |

Beef grades

All youthful carcasses are cut between the 12th and 13th ribs to expose the longissimus dorsi muscle (rib eye). This lets the grader make quality assessments and measure fat at a precise point from the edge of the rib eye.

CANADA A From youthful animals. The lean is firm, fine grained and a bright red color, and has at least a slight marbling (fat through the lean). The fat covers most of the exterior and is white or slightly tinged with a red or amber. This fat measurement and overall fat cover subdivide the A and B grade into four fat classes. Canada A1 or Canada B1 represent the least fat, and Canada A4 or Canada B4 indicate most fat.

Fat levels for Canada A

| $\begin{array}{c} A_1 \\ 4-9 \text{ mm} \end{array}$ | $\begin{array}{c} A_2 \\ 9-14 \text{ mm} \end{array}$ | $\begin{array}{c} A_3 \\ 14-19 \text{ mm} \end{array}$ | A ₄ over 19 mm | |
|--|---|--|------------------------------|--|
| | | | | |

As an example, a carcass having all the quality factors for Canada A, and 10 mm of measured fat would be grade stamped and branded A2. CANADA B From youthful animals. The lean is moderately firm, with color ranging from bright red to medium dark red. The color of the exterior fat may be white or have a yellowish tinge. There is no minimum marbling required. Canada B1 grade has a fat level of 2 to 9 mm. Fat measurements for Canada B2, B3 and B4 are the same as the corresponding Canada A levels.

CANADA C1 From youthful to intermediate aged steers, heifers or young cows. It is graded C because it has less fat covering or a lower proportion of meat to bone than Canada B, or is at the intermediate stage of bone maturity or has the pale yellow fat color.

CANADA C2 From the same maturity grouping as C1, but these carcasses have only a slight fat cover (not measurable) over the loins and ribs.

CANADA D From mature cows or steers. D1, D2, D3, D4 and D5 are divided according to proportion of lean to bone and specific degree of overall fat cover. The Canada D4 grade includes excessively fat mature or intermediate aged carcasses. Canada D5 usually has a low proportion of lean to bone, lacks fat cover and is used as boneless beef for further processing.

CANADA E From mature, intermediate aged bulls or young bulls that have pronounced masculinity. These carcasses are used mainly for manufacturing or for processed meat products.

POULTRY

Dressed and eviscerated poultry must be graded for wholesale and retail trade in most major cities. All eviscerated poultry that is imported, exported or shipped between provinces must be graded and health inspected. All imported eviscerated poultry must meet equivalent Canadian grade standards but the name "Canada" does not appear in the grade mark.

Health inspection

Health inspection is the responsibility of federal veterinarians stationed in eviscerating plants approved and registered by Agriculture Canada. Poultry passing health inspection in these plants has the "Canada" inspection legend on the tag, bag or insert.

Grades

Poultry grades are Canada A, identified by a red tag and Canada B and Canada Utility, both with blue tags. Canada C, not usually available at retail, has a brown tag. Poultry is graded on:

- conformation presence of deformities that affect appearance or normal distribution of flesh (e.g., a crooked keel bone);
- fleshing distribution and amount of flesh in specific areas;
- fat covering distribution and amount of fat in specific areas;
- dressing presence of defects such as discoloration, tears, pinfeathers, bruises or other blemishes.

Grade names are the same for chickens, stewing hens, turkeys, ducks and geese. It appears inside a maple leaf symbol on a metal breast tag or printed on the bag wrappers over the breast of each bird. A different color designates each grade. Turkeys, ducks and geese must also be marked as "young" or "mature".

CANADA A (RED) The quality most commonly available on the retail market. The birds are formed normally and well fattened and fleshed. They may have a slightly crooked keel bone, minor discolorations, and a few pinfeathers and short tears in the skin.

Chickens must have fat showing over breasts and thighs.

Broiler turkeys, or young turkeys weighing less than 12 lb (eviscerated weight), have a moderate covering of fat over the breasts; turkeys weighing more than 12 lb have breasts and thighs reasonably well covered with fat and a slight covering over the back.

Chicken capons, stewing hens, ducks and geese have breasts, thighs and backs reasonably well covered with fat.

CANADA B (BLUE) Birds are formed normally but may have a slightly crooked keel bone. They are not as well fleshed and fattened as Canada A birds. A few short skin tears, minor discolorations and pinfeathers that do not seriously detract from the appearance of the bird are allowed.

CANADA UTILITY (BLUE) Of the same quality as Canada A or Canada B, but one or more parts of the bird may be missing and some skin or flesh may have been removed during processing because of minor bruising or discoloration.

CANADA C (BROWN) Birds are fairly well fleshed, but may have large skin tears, pinfeathers and prominent discolorations.

Grading and inspection

Poultry may be processed and graded by producers registered to handle only their own products, or at registered commercial poultry processing plants. Both types of premises must comply with strict construction, operating and sanitation requirements. If a plant meets all standards, it is issued with a registration number that appears on the bag or tag of poultry it grades.

Federal agricultural inspectors frequently check sanitation in plants. They make periodic inspections of grade quality at wholesale distributors' holding freezers, retail stores, restaurants, hospitals, other institutions and military camps.

Packaging and labeling

Regulations govern proper packaging, labeling and identification of the product which must include the common name, grade, name of packer, ingredient listing, net weight and the words "basted", "deep basted" etc. when they apply.

Turkey, chicken, ducks and geese are graded Canada A (red), Canada B (blue), Canada Utility (blue) and Canada C (brown).

young turkey

jeune dindon

net 4.5 kg 10 lb





FOOD LABELING

Under the Consumer Packaging and Labelling Act food labels must give information that helps consumers make their purchases. Such information includes the common name of the foods, the net quantity, the identity and principal place of business of the food manufacturer or distributor and a complete list of all ingredients in order of proportion. For example, the label on a can of peas might list peas, water and salt. This indicates that peas are the highest proportion of ingredients and salt the lowest.

If the product is graded, the grade name must appear on the princi-

pal display panel.

Labels also must list all food ingredients, seasonings, flavorings,

vitamins, minerals and additives when applicable.

The use of additives in food is regulated by Health and Welfare Canada under the Food and Drug Act. Food additives are any substances that, when used in food become part of it or affect its characteristics. They do not include food ingredients (such as salt, sugar or starch), vitamins, minerals, amino acids, spices, seasonings and flavorings. Examples of food additives are antimicrobial agents, emulsion stabilizers, anti-oxidants, coloring agents, thickeners and food enzymes such as rennet.

Some food labels offer additional information:

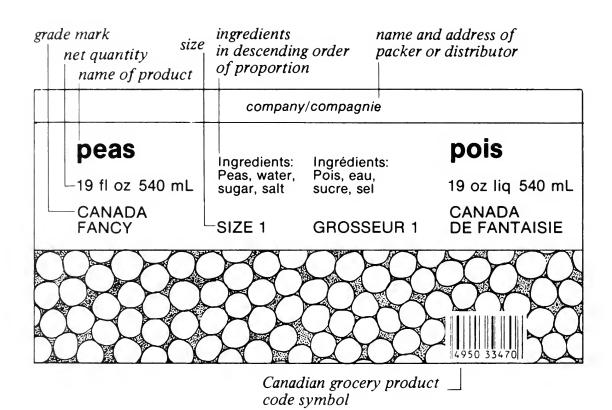
BEST BEFORE Packaged foods (except fruits and vegetables and fresh meats) that should be used within 90 days or less must show a durable life date on the label, with the words "best before" immediately preceding the date. If the product is stored properly, it will keep its normal wholesomeness, eating quality, and any other qualities claimed by the manufacturer until that date. Once the package is opened and some of the food removed, the "best before" date no longer applies. Refrigerated foods will probably remain safe to eat much longer than the expiry date; however, there may be a loss in quality.

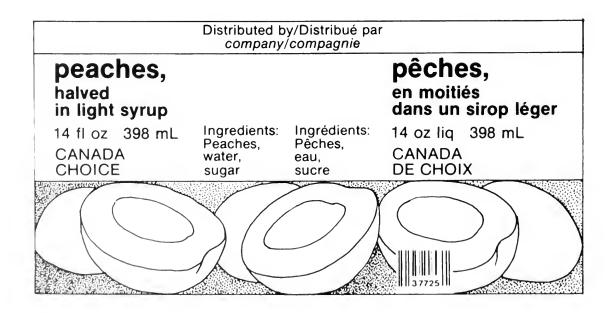
Recommended expiry date for packaged foods. e.g. Nov. 25, 1982.

Best Before / Meilleur avant 82-N0-25

PREVIOUSLY FROZEN If frozen meat or a meat byproduct is thawed before being offered for sale, the words "previously frozen" must appear on a sign near the food. Similarly, ground beef made by grinding together frozen boneless beef and fresh beef must be marked with a sign that reads: "made from fresh and frozen portions".

Typical labels for canned fruits and vegetables. Grades are Canada Fancy, Canada Choice, Canada Standard.





APPENDIX: A BACKGROUND OF GRADING IN CANADA

The Government of Canada passed the first acts regulating agricultural products shortly after the turn of the century. In the years that followed,

the list of products that must be graded greatly increased.

Today, two acts administered by Agriculture Canada cover just about everything. These are the *Meat Inspection Act* and the *Canada Agricultural Products Standards Act*. The first provides for the inspection of meat and meat products for interprovincial and export trade; the second, passed in 1955, sets the general standards for grading and marking agricultural products. It includes detailed regulations governing dairy products, fresh and processed eggs, processed poultry, fresh and processed fruit and vegetables, honey, maple syrup and beef, hog, lamb, mutton and veal carcasses.

The following paragraphs outline briefly the steps Canada took to grade agricultural products over the years. The information has been taken from Agriculture Canada Historical Series, No. 1, Canada Agriculture — the first hundred years, published in 1967.

Fruit and vegetables

Although apples were graded for export in 1892, the *Fruit Marks Act* of 1901 first standardized fruit grades. It also decreed that packages for fruit sold in Canada be marked with the grade.

Passed in 1935, the Fruit, Vegetables and Honey Act was designed to control the sale of fruit and vegetables in interprovincial and export trade.

Canada was the first country to have special legislation for canned foods. The Meat and Canned Food Act of 1907 with later amendments is the basis for present regulations covering canned foods. Grading standards were adopted in 1918. The Processed Fruit and Vegetable regulations of 1954 were later incorporated under the Canada Agricultural Products Act.

Maple products

The Maple Products Industry Act, 1945, provided for the shipping of maple products interprovincially or for export.

Dairy products

The *Dairy Products Act* was passed in 1893 to begin the branding of dairy products and prohibit the sale of imitation cheese. Butter and cheese were shipped in refrigerated steamships to Britain and in 1894 some 70 million kilograms of cheese were exported. By 1897 Canada supplied the United

Kingdom with 60% of its imported cheese.

The Dairy Industry Act of 1914 regulated the manufacture and sale of dairy products. It prohibited the manufacture and sale of butter substitutes of any kind. Later, during World War I, regulations were passed under the War Measures Act permitting the manufacture and sale of margarine.

In 1921 the *Dairy Products Act* provided for the grading of dairy products. Standards were set for uniform Canada-wide manufacturing, inspection, grading, marking and packaging, particularly of butter and cheese.

The Canada Dairy Products Act provided, in 1952, for the grading of dairy products done under the previous act and included regulations for interprovincial and international trade.

Eggs

The export market for eggs during World War I influenced the establishing of grading regulations in 1918. As a result, Canadian eggs commanded a quality premium on world markets. In 1923 eggs were graded on the domestic market. The selling of graded eggs created such an increase in demand that Canada led the world in per capita consumption.

Meat

The Meat and Canned Food Act, passed in 1907, established an inspection service in meat packing plants and canning factories. To secure continuing export markets for select Canadian bacon in the years following World War I, live hogs were graded under the Livestock and Livestock Products Act (1917). Carcass grading of hogs began in 1934 and became the official system in 1940. The grading of hogs improved the quality of bacon and pork products and resulted in an increase in both domestic and export trade.

A hog index grading system was implemented in 1968. Under this system back fat measurements are taken that are an indication of yield.

Beef grading standards were first adopted in 1928.

The *Livestock and Livestock Products Act*, 1939, was updated and included regulations for the grading of all meat carcasses.

The Meat Inspection Act, 1959, resulted in improved and strengthened meat inspection service in Canada. It included regulations on slaughtering and processing, and inspection of livestock and meat products, and set standards for packaging, labeling and marking.

Poultry

Grade standards and marking of dressed poultry were established in 1928. Later, in 1943, canned poultry grading regulations were passed.



